

other subspecies. Rufous of face rather brighter than in *rufigenis*. Postauricular patch not large or very conspicuous, its hairs white, with their ends buffy, more broadly buffy than in *rufigenis*. Thighs more strongly suffused with dull buffy, which makes a more abrupt contrast with the grizzled greyish of the hinder back than is the case in *rufigenis*, where the brownish of the back passes gradually into the dull rufous of the thighs. Throat whitish, with a slight reddish tinge, less marked than in *rufigenis*. Belly-hairs broadly slaty, with whitish tips to the hairs.

Skull as in *rufigenis*.

Dimensions of the type:—

Head and body 168 mm.; tail 148; hind foot 47; ear 22.

Skull: greatest length 55; condylo-incisive length 48; nasals 18.2; tooth-row exclusive of  $p^3$  10.

*Hab.* Middle Mekong. Type from Ban Hoi Mak, near Pak-hin-bun, on the French side of the Mekong, about 17° 30' N.

*Type.* Old female. B.M. no. 20.12.10.2. Original number 7230. Collected 29th February 1920. Presented to the National Museum by Herbert C. Robinson and C. Boden Kloss. Two specimens.

Readily distinguishable by its pale and comparatively coarsely speckled back from any of the races hitherto described. *D. r. fuscus*, its near neighbour in Annam, is a dark-coloured form with conspicuous white postauricular patches.

In my 'Lectotypes of Indian Mammals' *Dremomys rufigenis* should have appeared, as it was founded on five cotypes; but it was overlooked. I now formally name no. 91.10.7.81, which was the specimen figured by Blanford, as the lectotype.

XX.—*New Rhipidomys, Akodon, Ctenomys, and Marimosa from the Sierra Santa Barbara, S.E. Jujuy.* By OLDFIELD THOMAS.

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SR. BUDIN has sent home a number of admirably prepared small mammals obtained by him in the Sierra Santa Barbara, S.E. Jujuy, and among these occur the following new forms:—

*Rhipidomys austrinus*, sp. n.

A large species allied to *R. leucodactylus*.

Size rather less than in *leucodactylus*, but still as in the larger species of the genus. Fur close and thick, hairs of back about 10–11 mm. in length. General colour lined greyish buffy brown, not so definitely buffy as in some of the more northern species. Under surface greyish white, the hairs buffy at base, white terminally in the type, slightly tinged with buffy in the paratype. Line of demarcation on sides not sharply marked. Ears large, brown, not strongly contrasted with the general colour. Hands and feet with the characteristic coloration found in *R. leucodactylus*, the metapodials mesially brown, the digits and edges white. Tail long, uniformly brown, not very heavily haired for this genus.

Skull rather smaller than that of *leucodactylus*, of normal shape. Nasals narrow. Interorbital region not very broad. Palatal foramina well open, extending back past the level of the front edge of  $m^1$ . Mesopterygoid fossa narrow, the palation with a well-marked median projection.

Dimensions of the type:—

Head and body 154 mm.; tail 180; hind foot 31·4; ear 24.

Skull: greatest length 36·5; condylo-incisive length 34·5; zygomatic breadth 20; nasals 13; interorbital breadth 5·6; palatilar length 15·2; palatal foramina  $8 \times 3\cdot2$ ; postforaminal palate 5·6; upper molar series 6·2.

*Hab.* Sierra de Santa Barbara, S.E. Jujuy. Type from Sunchal, 1200 m.

*Type.* Adult male. B.M. no. 21. 1. 1. 17. Original number 1025. Collected 6th June, 1920, by E. Budin. Presented by Oldfield Thomas. Two specimens.

This is a considerable southern extension of the genus *Rhipidomys*, which had not previously been known to occur in the Argentine. The species is allied to the Peruvian *R. leucodactylus*.

#### *Akodon sylvanus*, sp. n.

A large species of the *arenicola* group.

Size large. Colour dark finely ticked olive-brown, darker than in most species of the group, varying according to the light between "olive-brown" and "deep olive." Under surface dull fuscous, the ends of the hairs dull greyish without marked buffy wash; chin not whitened. Ears with proectote black edged with buffy, metentote mixed black and buffy. Hands and feet dull brownish. Tail brown above, whitish below.

Skull large, smooth and rounded, broader and heavier than

in *A. arenicola hunteri*. Palatal foramina long, reaching past the second lamina of  $m^1$ .

Molars inclined to be hypsodont. A median notch on the front edge of  $m^1$ .

Dimensions of the type:—

Head and body 102 mm.; tail 77; hind foot 21.5; ear 16.

Skull: greatest length 27; condylo-incisive length 25; zygomatic breadth 13.7; nasals 10.3; interorbital breadth 4.4; breadth of brain-case 12; palatilar length 11.7; palatal foramen 6.9; upper molar series 4.4.

*Hab.* Sierra de Santa Barbara, S.E. Jujuy. Type from Sunchal, 1200 m.

*Type.* Adult male. B.M. no. 21. 1. 1. 27. Original number 1019. Collected 5th June, 1920, by E. Budin. Fifteen specimens.

Considering its wide geographical separation, this Santa Barbara *Akodon* has a curious resemblance to the *A. arenicola hunteri* of the Parana Delta, with which it agrees closely in size and colour. Its skull may, however, be distinguished by the greater breadth both of the interorbital space and of the brain-case.

“Caught in thick damp woods at from 1200 to 2000 metres.”—E. B.

*Ctenomys budini barbarus*, subsp. n.

Santa Barbara race of *budini*. Middle line of muzzle blackened.

General appearance very much as in *C. budini utilis*, but the median line of the muzzle, for a breadth of about a centimetre, is always prominently black, the black often running back to the forehead. The sides of the muzzle, external to the black, have a warm, almost reddish, tone, generally much warmer than that of the body. Back near “auburn”; belly pale buffy brown. Axillary and inguinal patches only rarely present. Upper surface of hands and feet largely mixed with black. Tail black or blackish mixed, well haired.

Skull as in the other subspecies. Supplementary bones at the front end of the parietals generally present.

Dimensions of the type:—

Head and body 217 mm.; tail 80; hind foot 32.

Skull: median length 48.5; condylo-incisive length 48.5; zygomatic breadth 31; nasals 16; breadth across brain-case 18.2; bimeatal breadth 30.5; palatilar length 21; upper tooth-series 9.6; oblique diameter of  $p^4$  4.

*Hab.* Sierra de Santa Barbara, S.E. Jujuy. Type from Sunchal, alt. 1200 m.; other specimens from San Rafael, 1000 m.

*Type.* Adult male. B.M. no. 21. 1. 1. 54. Original number 1033. Collected 14th June, 1920, by E. Budin. Presented by Oldfield Thomas. Twenty-nine specimens in all.

When I described *C. sylvanus* and *C. sylvanus utilis* I stated that these forms were very closely allied to *C. budini*, and I have now come to the conclusion that all three, and the new form here described, should be united specifically, and be considered as four subspecies of one species.

True *budini* has whitish feet, unblackened muzzle, and no axillary or inguinal patches. *C. b. sylvanus* is very dark-coloured throughout, but without local markings, and has a nearly naked tail. *C. b. utilis*, of which Sr. Budin has now sent over a score from Caimancito, near Yuto, has usually no black patch on the muzzle, but almost invariably has well-marked axillary and inguinal white patches. Curiously enough, it is also very liable to melanism, nearly half the specimens sent being glossy black everywhere except on the white patches below. No melanistic examples occur among the series of *C. b. barbarus*.

*Marmosa elegans sponsoria*, subsp. n.

Like *M. e. cinderella*, but with more elongate skull.

Colour in all respects as in *cinderella*\*, and similarly differing from that of *M. e. pallidior*. On the middle of the chest there is a patch where the hairs are white to the base, but this, though omitted in the description, is also present in *cinderella*. Skull much more elongate than in the other subspecies, the length materially greater, while the breadth is the same or even less. Supraorbital edges rounded, without trace of sharpened edges.

Dimensions of the type:—

Head and body 103 mm.; tail 143; hind foot 16·5; ear 24·5.

Skull: upper length 30; condylo-basal length 29·7; zygomatic breadth 15·7; nasals 12·8 × 3; interorbital breadth 5; breadth of brain-case 11·4; palatal length 16·5; front of canine to back of last molar 11·8; three anterior molariform teeth 5·1.

*Hab.* Sierra de Santa Barbara, S.E. Jujuy. Type from Sunchal, 1200 m.

\* Described, Ann. & Mag. Nat. Hist. (7) x. pp. 159, 161 (1902).

*Type.* Adult male. B.M. no. 21. 1. 1. 85. Original number 1055. Collected 23rd June, 1920.

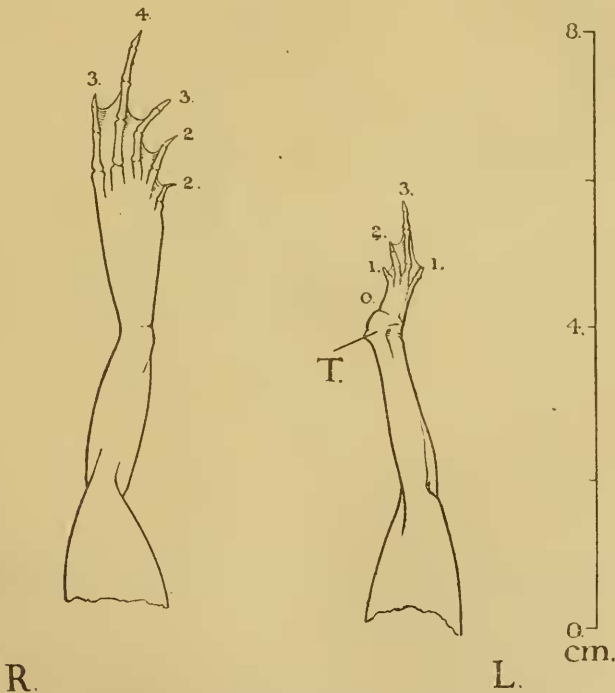
Typical *M. elegans cinderella* ranges north to western Jujuy, where Sr. Budin has obtained it at Jujuy itself and other localities; but here, in the eastern part of the province, east of the Rio Grande de Jujuy, its representative has so uniformly longer a skull that subspecific separation seems clearly needed.

XXI.—*Abnormal Legs in Frogs.*

By W. HAROLD LEIGH-SHARPE, M.Sc. (Lond.).

DURING the year 1920 my attention has been attracted to cases of abnormality in the legs of *Rana temporaria* (two of

Fig. 1.



R, right (normal) leg; L, left (abnormal) leg from the same specimen, from the ventral aspect. T, tarsus.

which are herein figured, and the original specimens preserved in the Biological Museum, St. Mary's Hospital Medical